

CIRCUIT BREAKER 3VA1 IEC FRAME 100 BREAKING CAPACITY CLASS N ICU=25KA @ 415 V 4-POLE, LINE PROTECTION TM210, FTFM, IN=50A OVERLOAD PROTECTION IR=50A FIXED SHORT CIRCUIT PROTECTION II=10 X IN NEUTRAL UNPROTECTED BUSBAR CONNECTION 2 AUXILIARY SWITCH HQ



| Model  |                             |
|--|-----------------------------|
| product brandname  | SENTRON                     |
| Product designation  | Molded case circuit breaker |
| Design of the product  | Line protection             |
| Design of the overcurrent release  | TM210                       |
| Protective function of the overcurrent release   | LI                          |
| Number of poles  | 4                           |
| Design of the auxiliary release  | without auxiliary release   |
| Design of the auxiliary switch   | 2 auxiliary switches HQ     |
| General technical data   |                             |
| Tension assignée d'isolement Ui  | 800 V                       |
| Max. rated operational voltage Ue with AC 50/60Hz  | 690 V                       |
| Max. rated operational voltage Ue with DC  | 600 V                       |
| Operating power / at AC-3 / at 400 V   | 0 W                         |
| Operating power / at AC-3 / at 230 V   | 0 W                         |
| Active power loss / for rated value of the current / at AC / in hot operating state / per device | 14.6 W                      |
| Mechanical service life (switching cycles) / typical   | 15 000                      |

|   |         |
|---|---------|
| Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz | 8 000   |
| Neutral conductors / upgradeable/retrofitable                             | No      |
| Ground fault monitoring version   | Without |
| Product function  |         |
| • communication function  | No      |
| • Phase failure detection   | No      |
| • other measurement function  | No      |
| Net weight  | 1.26 kg |

### Electricity

|   |       |
|---|-------|
| Max. rated operational voltage of the size of the circuit-breaker | 100 A |
| Courant permanent assigné Iu                                      | 50 A  |
| Operating current   |       |
| • at 40 °C  | 50 A  |
| • at 45 °C  | 50 A  |
| • at 50 °C  | 50 A  |
| • at 55 °C  | 48 A  |
| • at 60 °C  | 47 A  |
| • at 65 °C  | 46 A  |
| • at 70 °C  | 45 A  |

### Switching capacity according to IEC 60947

|   |         |
|---|---------|
| Switching capacity class of the circuit breaker           | N       |
| Maximum short-circuit current breaking capacity (Icu)     |         |
| • at 240 V  | 36 kA   |
| • at 415 V  | 25 kA   |
| • at 440 V  | 16 kA   |
| • at 690 V  | 5 kA    |
| Operational short-circuit current breaking capacity (Ics) |         |
| • at 240 V  | 36 kA   |
| • at 415 V  | 25 kA   |
| • at 440 V  | 16 kA   |
| • at 690 V  | 5 kA    |
| Short-circuit current making capacity (Icm)               |         |
| • at 240 V  | 75.6 kA |
| • at 415 V  | 52.5 kA |
| • at 440 V  | 32 kA   |
| • at 690 V  | 7.5 kA  |

### Adjustable parameters

|   |     |
|---|-----|
| Adjustable response value current / I <sub>g</sub> min. | 0 A |
|---|-----|

|   |         |
|---|---------|
| Adjustable response value current / I <sub>g</sub> min. | 0 A     |
| Adjustable response value current / I <sub>g</sub> min. | 0 A     |
| Adjustable response value current / I <sub>g</sub> min. | 0 A     |
| Adjustable response value current / I <sub>i</sub> min. | 0 A     |
| Adjustable response value current / I <sub>i</sub> max. | 0 A     |
| Design of the N-conductor protection                    | Without |

### Mechanical Design

|        |          |
|--------|----------|
| Height | 130 mm   |
| Width  | 101.6 mm |
| Depth  | 70 mm    |

### Connections

|   |                |
|---|----------------|
| Arrangement of electrical connectors / for main current circuit                         | Front terminal |
| Type of electrical connection / for main current circuit                                | lug terminal   |
| Type of connectable conductor cross-section, connection screw, width x thickness , min. | 12 x 0         |
| Type of connectable conductor cross-section, connection screw, width x thickness , max. | 17 x 6.5       |

### Auxiliary circuit

|  |   |
|--|---|
| Product component  |   |
| <ul style="list-style-type: none"> <li>• undervoltage release</li> <li>• Voltage trigger</li> <li>• undervoltage release with leading contact</li> <li>• Trip indicator</li> </ul> | <p>No</p> <p>No</p> <p>No</p> <p>No</p> |
| Number of CO contacts / for auxiliary contacts   | 2                                       |

### Accessories

|   |   |
|---|---|
| Product extension / optional / motor drive  | No  |
| Manufacturer's article number   |   |
| <ul style="list-style-type: none"> <li>• of the supplied basic switch</li> <li>• of the integrated auxiliary switch/alarm switch</li> <li>• of the integrated auxiliary trip</li> </ul> | <p><a href="#">3VA1050-3ED42-0AA0</a></p> <p><a href="#">3VA9988-0AA12</a></p> <p>3VA9688-0BL32</p> |

### Environmental conditions

|  |   |
|--|---|
| Protection class IP / on the front   | IP40  |
| Ambient temperature  |   |
| <ul style="list-style-type: none"> <li>• during operation / minimum</li> <li>• during operation / maximum</li> <li>• during storage / minimum</li> <li>• during storage / maximum</li> </ul> | <p>-25 °C</p> <p>70 °C</p> <p>-40 °C</p> <p>80 °C</p> |

### Certificates

|  |   |
|--|---|
| Equipment marking / acc. to DIN EN 81346-2 | Q |
|--|---|

|                          |     |                           |
|--------------------------|-----|---------------------------|
| General Product Approval | EMC | Declaration of Conformity |
|--------------------------|-----|---------------------------|



[sonstig](#)



|                   |                   |
|-------------------|-------------------|
| Test Certificates | Shipping Approval |
|-------------------|-------------------|

[Typprüfbescheinigung/Werkszeugnis](#)

[sonstig](#)



|                   |       |
|-------------------|-------|
| Shipping Approval | other |
|-------------------|-------|



[sonstig](#)

#### Further information

##### Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/lowvoltage/catalogs>

##### Industry Mall (Online ordering system)

<https://eb.automation.siemens.com/mall/en/WW/Catalog/Product/3VA1050-3ED42-0AC0>

##### Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3VA1050-3ED42-0AC0/all>

##### Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mfb=3VA1050-3ED42-0AC0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mfb=3VA1050-3ED42-0AC0)

##### CAX-Online-Generator

<http://www.siemens.com/cax>

##### Tender specifications

<http://www.siemens.com/specifications>



**last modified:**

10/24/2016